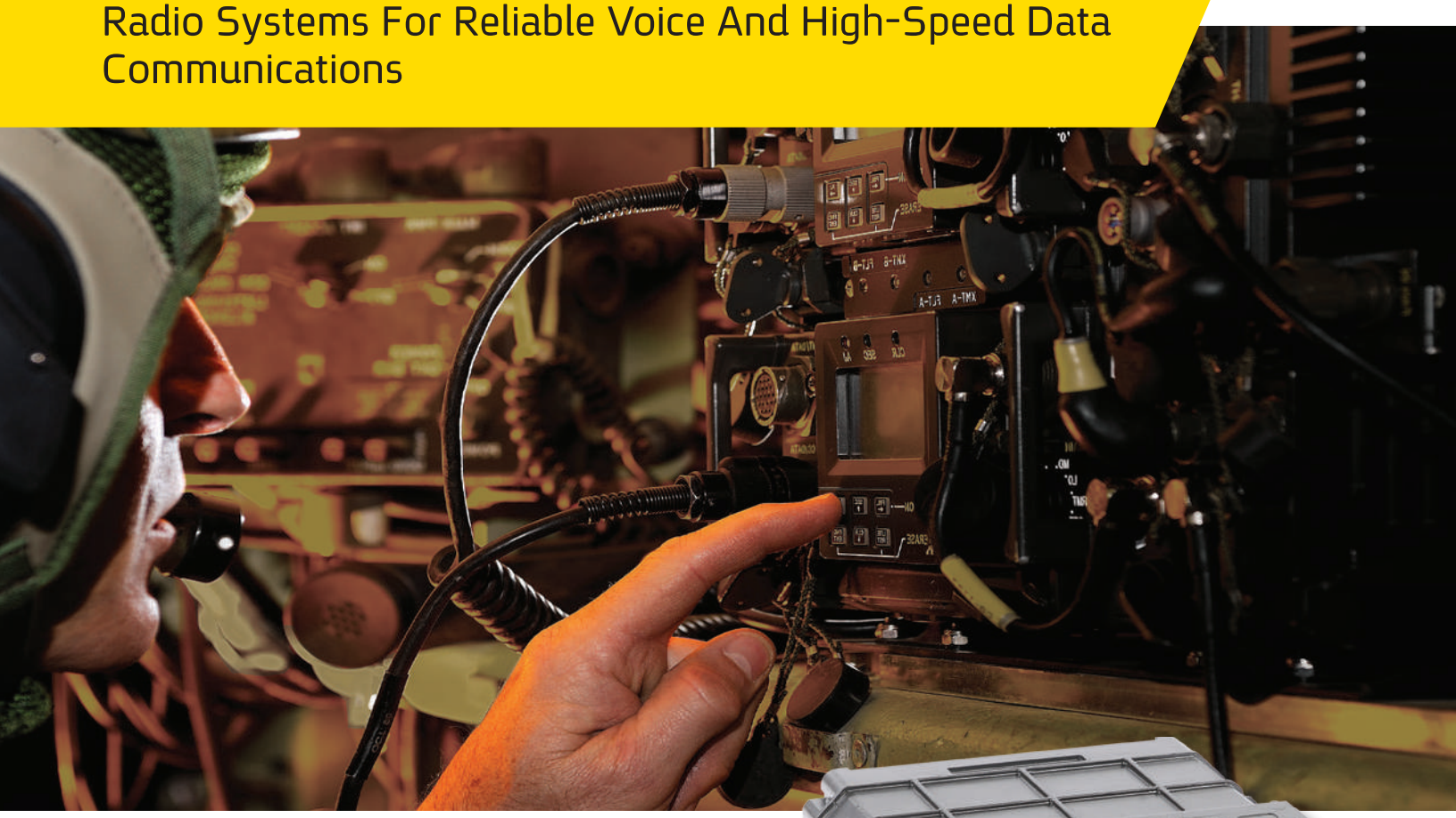
Tadiran CNR-9000HDR /IP RADIO

Most Advanced, Combat-Proven VHF/FM COMSEC/ECCM Radio Systems For Reliable Voice And High-Speed Data Communications



Elbit Systems™
C4I and Cyber

PRC-930HDR

VRC-950HDR

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Dependable communication forms the backbone of any military operation and is a critical component of mission success. Emerging tactical applications that utilize video and data have created new requirements for VHF/FM tactical networks. Driven by combat experience the Tadiran CNR-9000HDR's unique capabilities, reliable voice and the high data communication make it the most advanced VHF/FM radio system in its class.

Advanced capabilities including extended range, powerful error correction, frequency-hopping and encryption

Featuring an extended communication range, the Tadiran CNR-9000HDR includes powerful error correction codes along with automatic data rate and type adaptation .These features ensure reliable communications in all operational scenarios. High-speed data transmission enables real-time video transmission as well as tactical e-mail and file transfer .Voice and data security are provided by state-of-the-art encryption. Proprietary full-band ECCM synchronous orthogonal frequency-hopping assures reliable operations in densely-jammed environments. The Tadiran CNR-9000HDR's provides the essential infrastructure for advanced C^4I systems enabling sophisticated features such as Radio Access Points, communication controller for automatic and robust data communication and effective relay capabilities.

VRC-980HDR

VRC-990HDR

ARC-920HDR

Key Features

- High-speed data transmission of up to 115.2 Kbps in 25khz bandwidth
- Powerful error detection and correction codes
- Automatic data rate and type adaptation
- Powerful encryption (SEC)
- Synchronous orthogonal frequency-hopping mode (ECCM), without master station
- Advanced vocoder for high-quality voice reception
- Built-in GPS and AGPSR
- Scans up to 4 channels
- Automatically indicates clear or secure signal
- Increased voice and data communication range
- Advanced algorithms to resolve multi-path interference
- Built in communication controller – IP

Operational Benefits

- User Friendly:
  - Innovative menu driven MMI
  - CLEAR, SEC and AJ indications
  - PTT oriented operation
  - Lightweight and compact size
  - Functional simplicity for minimum operator workload
  - Detachable Panel for all configurations
- Real-time video transmission and high-speed data communication
- Tactical e-mail and file transfer
- Integrated short message service (SMS), no need for external terminal
- Variety of configurations using a common RT: manpack, vehicular/fixed station, airborne, shipborne, relay and RAP (Radio Access Point)
- Backwards compatible with Tadiran CNR-9000, Tadiran PRC-710 and AN/VRC-12
- Cost effective – low MTTR and high MTBF

Ancillaries and Operational Service Applications

The Tadiran CNR-9000HDR can be tailored to meet specific operational requirements using a wide range of ancillaries and operational service applications. The radio system is integrated with numerous antennas including GPS, low profile wide band, and manpack whip antennas. Other ancillaries include handsets, hands-free headsets and loudspeakers, as well as different types of batteries and chargers. Various software applications are available for planning network deployment in different geographic and environmental conditions ,several data applications and variety of control units and applications.

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Technical Specifications

General	
Frequency	30-88/108* MHz
Modes of operation	
Fixed Frequency	Clear and COMSEC
Frequency-hopping	ECCM/COMSEC
Preset Channels	100
Scanning	Up to four pre-selected channels
Selective Call / Selective Bar	Individual and group communication
Vocoder*	2400, 4800 bps
GPS+AGPSR*	Including radio position transmission (automatic/manual)
Comm. Controller*	STANAG 4XXX
Environmental	
Operating Temperature	-40°C to +65°C
Environmental Conditions	MIL-STD-810E/F/G
Immersion	1 meter
Electromagnetic Interference	MIL-STD-461C/462
Ancillaries	Compatible with backward ancillaries
Transmitter	
Power output for various configurations	
Manpack	0.25, 10W
Airborne	0.25, 10, 20W
Vehicular/Base	0.25, 10, 50W
Anti-Jamming (ECCM)	
Technique	Synchronous orthogonal frequency-hopping over the entire frequency band (30-108 MHz) or partial band
Synchronization	Auto synchronization capability, no master station, no single point of failure
Maximum Radio Silence Time	Unlimited for full synchronization
Late Entry	Fully automatic with no special procedures required
Orthogonality	Up to 128 orthogonal nets over any frequency table
Special Feature	Hailing from frequency-hopping to fixed frequency and vice versa
Encryption (COMSEC)	
Type	Digital, very long non-linear "white" sequences
Special features	CLEAR override, COMSEC alarm, auto resynchronization capability
Data Communication	
Type	Analog digital synchronous and asynchronous
	Up to 85.333 Kbps with error correction (synchronous)*
	Up to 115.2 Kbps with error correction (asynchronous)*

*Optional

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